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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,173	06/22/2001	Vladimir V. Petunin	003921.00093	8844

22907	7590	04/18/2008
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EXAMINER	
ARBES, CARL J	

ART UNIT	PAPER NUMBER
3729	

MAIL DATE	DELIVERY MODE
04/18/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/888,173	Applicant(s) PETUNIN, VLADIMIR V.	
	Examiner C. J. Arbes	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The Examiner has found what is considered to be more pertinent prior art and therefore the following **Non-Final** Office action is taken.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 2, for example Applicant recites...examining crosstalk rules and automatically inserting a spacer between the victim trace and the aggressor trace... . It is held that this language does not allow one to determine the proper metes and bounds of the invention inasmuch as what are the cross talk rules that are being determined. Moreover what does Applicant intend by the term "examining"? What is included/excluded by the language quoted above? Since this language cannot be determined with enough specificity and clearness, it is held that these claims are unclear, vague and definite and do not distinctly claim or particularly point out the invention. Moreover the language recited in Applicant's claim 3 is also held to not particularly point out or distinctly claim the invention. What does Applicant intend by the language ... wherein the crosstalk rules comprise noise thresholds... mean? "Crosstalk rules" are not statement's that are familiar such Newton's 3rd Law, 2nd Law of thermodynamics, the relationship among voltage, current and resistance for a DC circuit or the like. What "rules" is Applicant referring? How many rules are there? What are the thresholds that Applicant refers? When are these thresholds exceeded? Similarly it is not understood

what Applicant intends by the language ... comprise at least one of the physical and electrical thresholds ... in claim 4. Claim 4 is further held to be unclear vague and indefinite.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirakata et al (Pat No. 6,465,268 B2); hereinafter Hirakata et al.

Hirakata et al teach a method of manufacturing an electro-optical device wherein parallel circuits i.e. a 1st trace and a 2nd trace (driver circuit areas 103, 104; 203,204 etc by inserting a spacer (gap retaining members 220, 710, 730, etc.)between the traces (driver circuit areas. The limitation "virtual" in Applicant's claims means that the PCB is a PCB design. Hirakata et al also teach that the 2 parallel circuits reduce crosstalk (Cf. Col 26) Therefore it would have been obvious at the time of this invention to place spacers between a 1st and a 2nd trace on a virtual PCB rather than on what Hirakata et al teach inasmuch as the function, purpose and result would be substantially the same. As applied to Claims 2-6 and 19 a PHOSITA without undue skill would use a computer to analyze where, how many and what type of spacers would have been necessary. Therefore it is held to have been obvious to, for examine the crosstalk rules, automatically insert spacers between a victim trace and an aggressor trace etc as recited in the dependent claims inasmuch as one who has reasonable knowledge of

computing with an ordinary computer would be able to use or have programmed the limitations that would have been necessary to carry out the make and use the claimed invention is said dependent claims. As applied specifically to claim 4 it is now held that a PHOSITA without undue skill would be able to use physical as well as electrical thresholds to determine where, when and how large the spacers should be in order to minimize the noise associated with having traces close together.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. J. Arbes whose telephone number is 571-272-4563. The examiner can normally be reached on M, T, R and F from 8 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, P. Vo, can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/C. J. Arbes/
Primary Examiner, Art Unit 3729